IN THE CLAIMS:

The following is a complete listing of claims in this application.

1. (currently amended) Capping device (1) for a neck (70) of a receptacle (7) with an axis of symmetry (71), ~~typically a bottle,~~ comprising a threaded upper portion (700) with height Hf provided with at least one thread with N turns and a lower portion or crimping ring (701), using a screw sealing cap (8) provided with a head ~~(82)~~ and a metallic crimpable skirt (80), the ~~said~~ device (1) comprising a capping head (2) capable of rotating at a rotation speed Ω using a rotation means (13), about an axis of rotation (20) common with the ~~said~~ axis of symmetry (71), and with axial displacement, ~~so as to move~~ whereby the ~~said~~ capping head (2) is moved closer to the ~~said~~ neck (70) ~~typically~~ fixed in the axial direction, during the ~~said~~ capping operation, ~~characterised in that~~ wherein:

a) the ~~said~~ capping head (2) is provided with a means of screwing the ~~said~~ cap (8) to the ~~said~~ threaded upper portion (700) of the ~~said~~ neck (70), and a means of crimping the ~~said~~ skirt (80) under the ~~said~~ crimping ring (701), the ~~said~~ axial displacement comprising a first axial displacement of the ~~said~~ capping head (2) activating the ~~said~~ screwing means and a second axial displacement of the ~~said~~ capping head (2) activating the ~~said~~ crimping means, the screwing means comprising a spring R0 (60) applying the force F0 on the head of the cap (8),

b) the ~~said~~ screwing means rotates the ~~said~~ cap (8) with respect to the ~~said~~ neck (70), during the ~~said~~ first displacement, the ~~said~~ screwing means comprising a means applying a force F0 on the ~~said~~ head ~~(82)~~ of the ~~said~~ cap (8) varying typically from 20 N to 150 N, during all or part of the ~~said~~ screwing step,

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~~so as to have~~ whereby a screwing step and a crimping step ~~forming~~ constitute the ~~said~~ capping operation, in a single axial displacement of the ~~said~~ capping head (2).

2. (currently amended) Device according to claim 1 in which the ~~said~~ screwing means rotates the ~~said~~ cap (8) with a rotation speed ~~typically~~ close to the ~~said~~ rotation speed Ω of the ~~said~~ capping head (2).

Claim 3 (canceled).

4. (currently amended) Device according to claim 1, in which the ~~said~~ crimping means includes at least two arms or lifting beams (40), each arm (40) carrying a crimping roller (41) at its lower end, articulated so that it can be brought closer to the ~~said~~ neck (70) during the ~~said~~ crimping step and moved away from the ~~said~~ neck (70) during the ~~said~~ screwing step.

5. (currently amended) Device according to claim 1, in which the ~~said~~ capping head (2) includes a ~~means, typically~~ a spring R2 (42) for applying a force F2 on the ~~said~~ head ~~(82)~~ of the ~~said~~ cap (8), ~~typically~~ varying from 500 N to 1500 N after the ~~said~~ screwing step and during all or part of the ~~said~~ crimping step.

6. (currently amended) Device according to claim 5, in which the ~~said~~ means for applying the ~~said~~ force F2 is ~~typically~~ activated before the ~~said~~ rollers (41) are applied in contact with the ~~said~~ skirt in order to crimp the ~~said~~ skirt (80)~~, so as to~~ and axially compress the ~~said~~ cap (8) in contact with the ~~said~~ neck (70) and its sealing ring, ~~particularly~~ optionally when the ~~said~~ cap (8) comprises a compressible seal (81) to be compressed before the crimping step in order to seal the ~~said~~ cap (8) on the ~~said~~ neck (70).

7. (currently amended) Device according to claim 4, in which the ~~said~~ capping head (2) comprises:

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a) a support C3 (3), typically cylindrical, solidarised to a fixed frame (10), capable of turning about the ~~said~~ axis of rotation (20) with the ~~said~~ rotation speed Ω ~~typically~~ predetermined and ~~possibly~~ optionally constant, and moving in the axial direction with respect to the ~~said~~ neck (70) with an axial displacement D3,

b) a coaxial tubular body C2 (4) internal to the ~~said~~ support C3 (3) and coaxial with it, but capable of moving axially with respect to the ~~said~~ support C3 (3) with an axial displacement D2, the ~~said~~ support C3 (3) comprising a lower stop (30) to limit the axial displacement of the ~~said~~ tubular body C2 (4) and applying a force F2 on the ~~said~~ tubular body C2 (4)~~, typically~~ using a spring R2 (42),

c) a central body C1 (5), coaxial with the ~~said~~ tubular body C2 (4), typically hollow, solidarised to the ~~said~~ tubular body C2 (4) for the ~~said~~ displacement D2 typically by means of a set of bearings, typically needle bearings (45), the ~~said~~ tubular body C2 (4) forming a hub for the ~~said~~ central body C1 (5) acting as an axle,

d) a means for partial coupling of the ~~said~~ tubular body C2 (4) and the ~~said~~ central body C1 (5) in rotation, rotation of the ~~said~~ tubular body C2 (4) only causing a rotation of the ~~said~~ central body C1 (5) during the ~~said~~ screwing step, rotation of the ~~said~~ central body C1 (5) ~~possibly~~ optionally being interrupted by the development of an opposing torque C at the end of screwing,

e) the ~~said~~ central body C1 (5) comprises a bearing part C0 (6) that will cause rotation of the ~~said~~ cap (8) and move axially with respect to the ~~said~~ central body C1 (5) with a displacement D0 ~~typically~~ corresponding to the height of the ~~said~~ threaded portion (700) of the ~~said~~ cap (8), an upper stop (51) for the ~~said~~ bearing part (6) and a spring R0 (60)

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applying a force F0 on the ~~said~~ bearing part C0 (6) ~~so as~~ to provide coupling of the ~~said~~ capping head (2) through the ~~said~~ bearing part C0 (6) and the ~~said~~ cap (8) in rotation, and to form the ~~said~~ screwing means,

f) the ~~said~~ arms or lifting beams (40) of the ~~said~~ crimping means are axially fixed to the ~~said~~ tubular body C2 (4) and can be rotated due to a secondary rotation axis (44) typically fixed to the ~~said~~ tubular body C2 (4).

8. (currently amended) Device according to claim 7 in which the ~~said~~ crimping means includes a cam (32) axially fixed to the ~~said~~ support C3 (3), each of the ~~said typically~~ rigid arms (40) comprising an upper part (400) ~~typically~~ provided with a caster or a wheel or a sliding pad (401), and a roller support arm (402) supporting the ~~said~~ roller (41), such that the ~~said~~ second displacement causes a temporary cooperation of the ~~said~~ cam (32) and the ~~said~~ wheel or pad (401), bringing the ~~said~~ roller (41) closer to the ~~said~~ neck (70) for the ~~said~~ crimping.

9. (currently amended) Device according to ~~either~~ claim 7 in which the ~~said~~ support C3 (3) of the ~~said~~ capping head (2) is solidarised to an arm (12), ~~typically horizontal,~~ and is free in rotation with respect to the ~~said~~ arm (12), the ~~said~~ support C3 (3) and the ~~said~~ arm (12) respectively forming an axle / hub assembly, the ~~said~~ arm (12) ~~possibly~~ optionally acting as a support for a motor forming the ~~said~~ rotation means (13) capable of driving the ~~said~~ support C3 (3) in rotation.

10. (currently amended) Device according to claim 9 in which the ~~said~~ arm (12) and the ~~said~~ fixed frame (10) cooperate~~, typically~~ using a vertical column (14) ~~so as~~ to assure the ~~said~~ axial displacement D3 of the support C3 (3) by translation of the ~~said~~ arm (12) in a vertical plane~~,~~

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~~typically~~ by means of an auxiliary motor (11) acting as an axial displacement means.

11. (currently amended) Device according to claim 9 in which the ~~said~~ arm (12) is placed onboard a rotary turret and forms part of a set of n capping heads (2), where n ~~typically~~ varies from 2 to 12, the supports C3 (3) being engaged to a central gearwheel to rotate the ~~said~~ supports C3.

12. (currently amended) Device according to claim 7, in which the ~~said~~ partial rotational coupling means of the ~~said~~ tubular body C2 (4) and the ~~said~~ central body C1 (5) is a magnetic or electromagnetic coupling~~, typically by means of facing magnets (43, 50) supported by the said tubular body C2 (4) and the said central body C1 (5)~~.

13. (currently amended) Device according to claim 7 in which, at the end of the screwing step, the ~~said~~ bearing part C0 (6) can be brought into contact with the ~~said~~ upper stop (51) so that the ~~said~~ central body C1 (5) and the ~~said~~ tubular body C2 (4) can transmit the ~~said~~ force F2 to the head ~~(82)~~ of the ~~said~~ cap (8).

14. (currently amended) Device according to claim 1, in which the rotation speed Ω and displacement speed V of the ~~said~~ capping head (2) during the ~~said~~ first displacement are slaved ~~so as~~ to satisfy the relation $V = Hf.\Omega/N$, ~~so as to synchronise~~ thereby synchronizing rotation of the ~~said~~ cap (8) and lowering it onto the neck (70) during the ~~said~~ screwing step, ~~typical~~ values of Hf, Ω and N being between 5 mm and 20 mm for Hf, between 150 rpm and 500 rpm for Ω, and between 10 and 25 turns for N.

Claim 15 (canceled).

16. (currently amended) Method according to claim ~~15~~ 20 in which the ~~said~~ cyclic movement of the ~~said~~ capping head (2) is a sinusoidal movement ~~typically~~ obtained by cooperation of

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a connecting rod and a crank.

17. (currently amended) Method according to claim ~~15~~ 20 in which the ~~said~~ cyclic movement of the ~~said~~ head (2) is a continuous circular movement ~~typically~~ obtained using a cam.

18. (currently amended) Method according to claim ~~15~~ 20 in which the ~~said~~ cyclic movement of the ~~said~~ head is a movement composed of linear parts at constant speed, ~~typically~~ obtained with hydraulic jacks.

19. (original) Method according to claim 18 in which the rise time Tr ~~may be~~ is shorter than the lowering time Td~~, and typically less than half as long~~.

20. (new) Method of capping a bottle having a threaded neck having an axis of symmetry with a screw cap using a capping device comprising a capping head having a rotation axis, comprising the steps of:

placing the bottle facing the head by a horizontal step by step displacement or continuous displacement of the bottle,

aligning the head on the rotation axis and axis of symmetry, and holding the bottle stationary for a time T corresponding to one capping cycle,

subjecting the head to a cyclic movement of duration T with respect to the neck, including lowering the head from a high point to a low point, with a lowering time Td during which the cap was procured and placed on the neck,

during lowering time Td, screwing the cap onto the neck and during a first time Tdv and crimping the cap onto the neck during a second time Tds,

causing the head to rise during rise time Tr after the lowering time, and

displacing the capped bottle, and replacing the capped bottle with a bottle to be capped when the head is at the high point.

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